FIG. 1

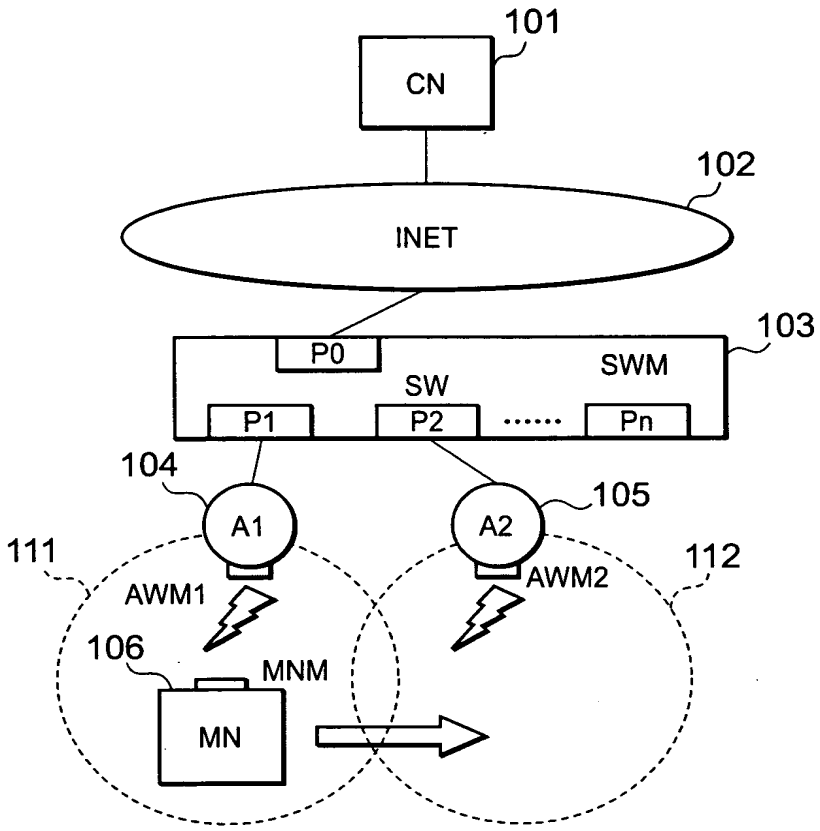

101
CN
102
INET
103
P0
SWM
SW
P1
P2
.....
Pn
104
A1
105
A2
111
112
AWM1
AWM2
106
MNM
MN

FIG. 2

MAC ADDRESS	OUTPUT PORT
AWM1	P1
AWM2	P2

FIG. 3

MAC ADDRESS	OUTPUT PORT
MNM	P1

FIG. 4A

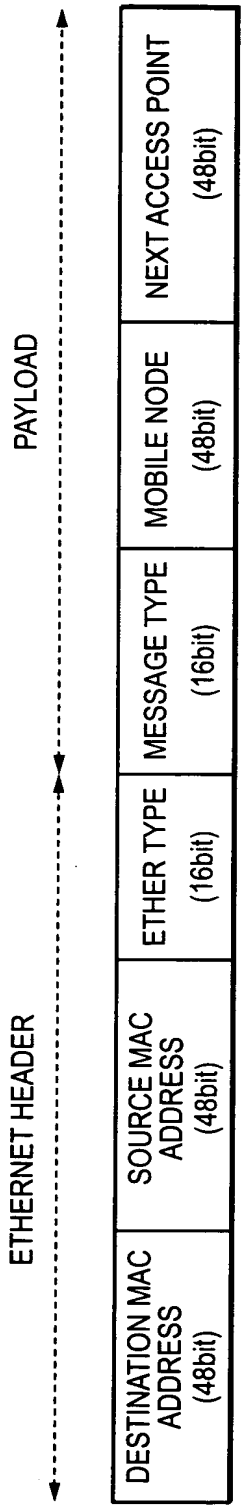

ETHERNET HEADER
PAYLOAD
DESTINATION MAC ADDRESS (48bit)
SOURCE MAC ADDRESS (48bit)
ETHER TYPE (16bit)
MESSAGE TYPE (16bit)
MOBILE NODE (48bit)
NEXT ACCESS POINT (48bit)

FIG. 4B

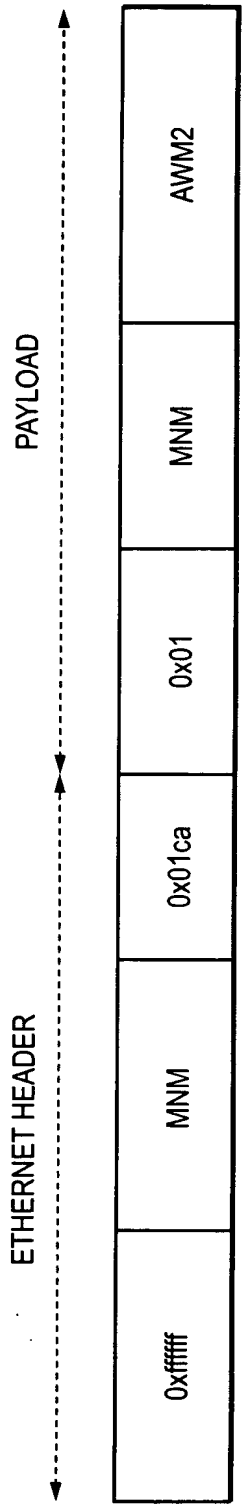

ETHERNET HEADER
PAYLOAD
0xffffff
MNM
0x01ca
0x01
MNM
AWM2

FIG. 5

MAC ADDRESS	OUTPUT PORT
MNM	P2

FIG. 6

MAC ADDRESS	OUTPUT PORT
MNM	P1
MNM	P2

FIG. 7A

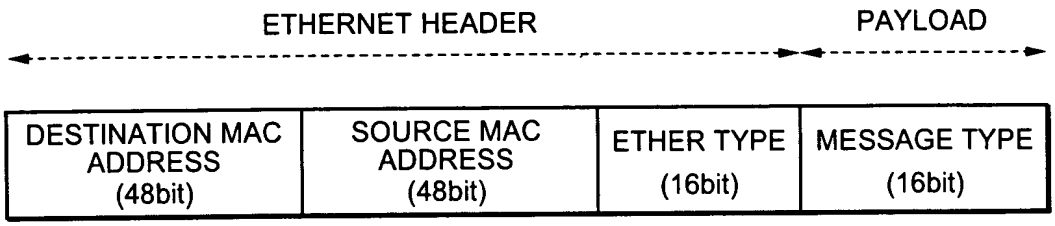

ETHERNET HEADER
PAYLOAD
DESTINATION MAC ADDRESS (48bit)
SOURCE MAC ADDRESS (48bit)
ETHER TYPE (16bit)
MESSAGE TYPE (16bit)

FIG. 7B

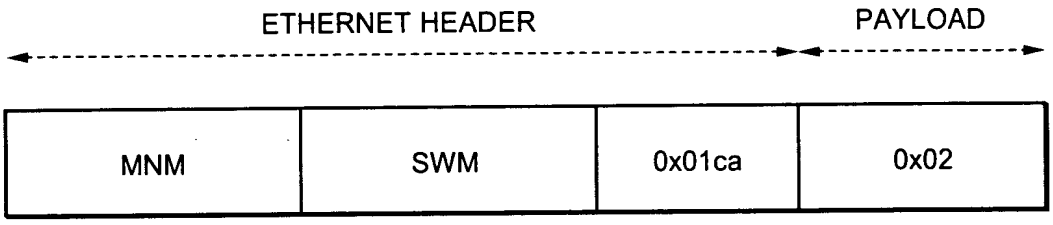

ETHERNET HEADER
PAYLOAD
MNM
SWM
0x01ca
0x02

FIG. 8A

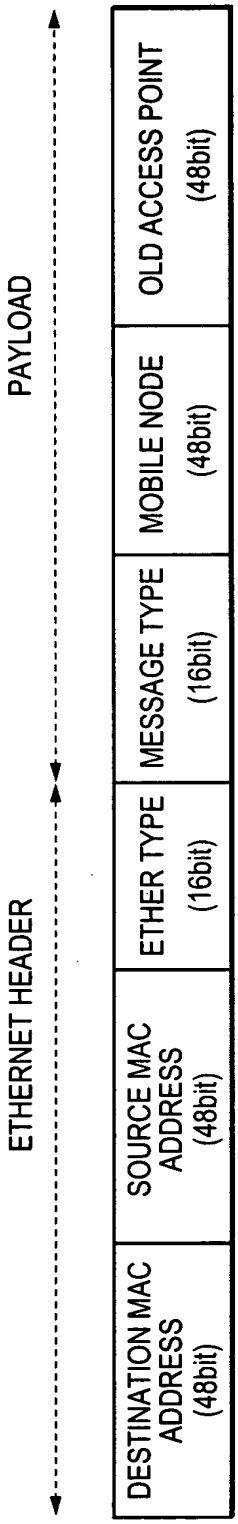

ETHERNET HEADER
PAYLOAD
DESTINATION MAC ADDRESS (48bit)
SOURCE MAC ADDRESS (48bit)
ETHER TYPE (16bit)
MESSAGE TYPE (16bit)
MOBILE NODE (48bit)
OLD ACCESS POINT (48bit)

FIG. 8B

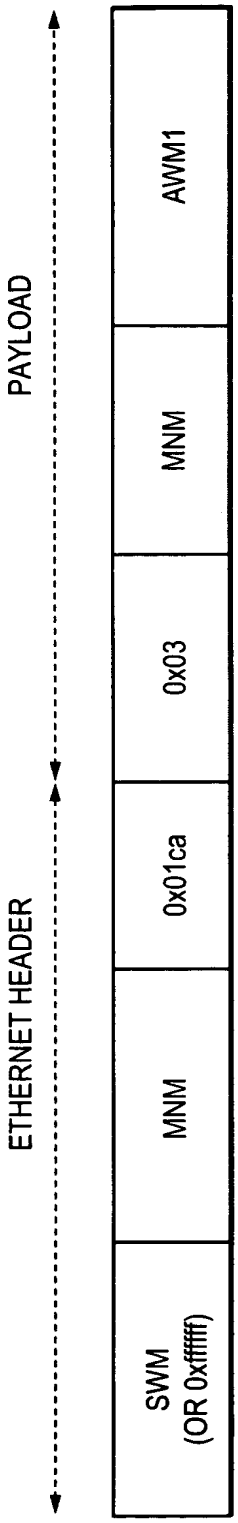

ETHERNET HEADER
PAYLOAD
SWM (OR 0xffffff)
MNM
0x01ca
0x03
MNM
AWM1

FIG. 9A

MAC ADDRESS	OUTPUT PORT
00:01:02:83:04:86	1

FIG. 9B

MAC ADDRESS	OUTPUT PORT
00:01:02:83:04:86	1
00:01:02:83:04:86	2

FIG. 9C

MAC ADDRESS	OUTPUT PORT
00:01:02:83:04:86	2

FIG. 10

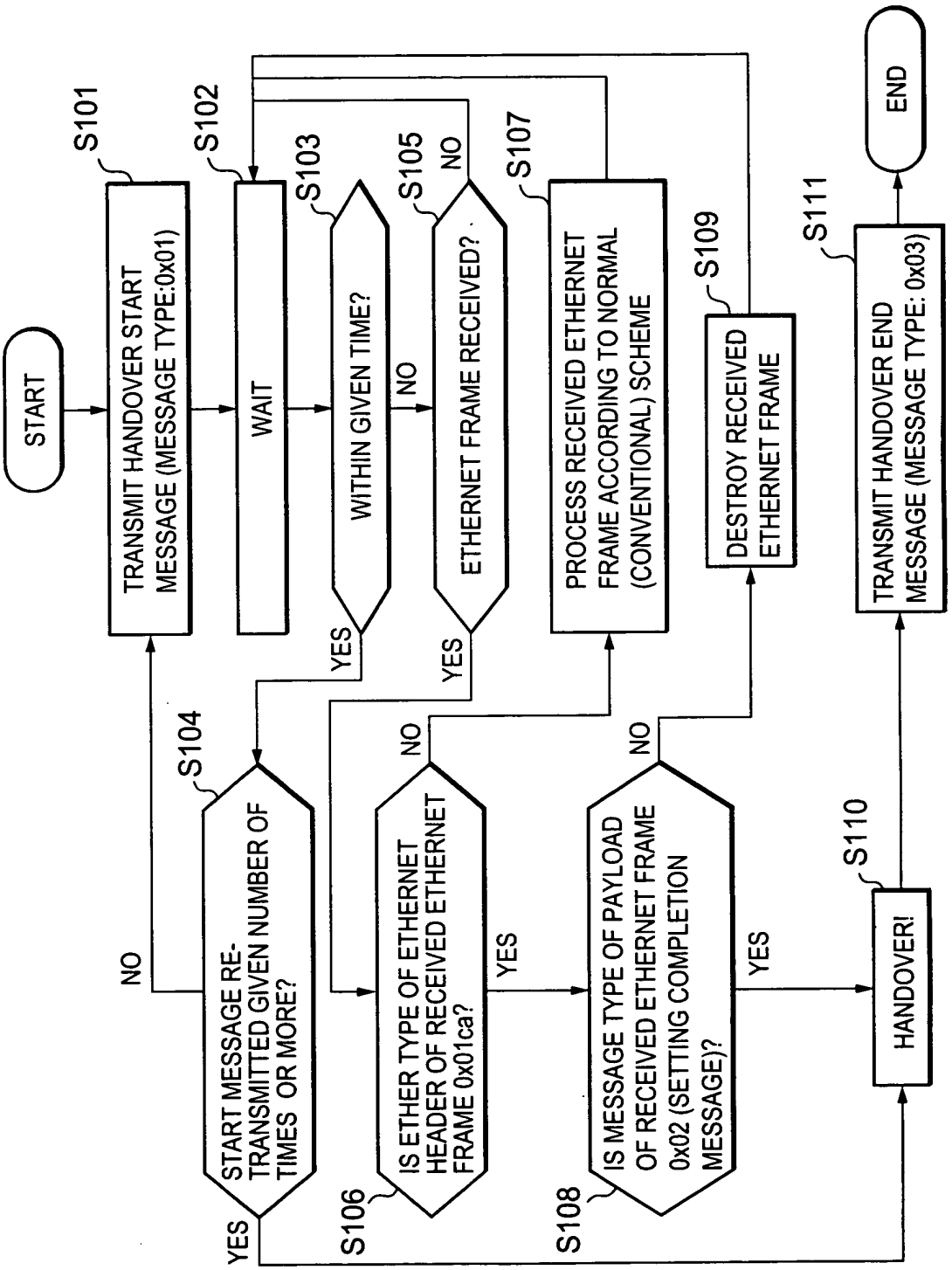

START
S101
TRANSMIT HANDOVER START MESSAGE (MESSAGE TYPE:0x01)
S102
WAIT
S103
WITHIN GIVEN TIME?
YES
NO
S105
ETHERNET FRAME RECEIVED?
YES
NO
S107
PROCESS RECEIVED ETHERNET FRAME ACCORDING TO NORMAL (CONVENTIONAL) SCHEME
S109
DESTROY RECEIVED ETHERNET FRAME
S104
START MESSAGE RE-TRANSMITTED GIVEN NUMBER OF TIMES OR MORE?
NO
YES
S106
IS ETHER TYPE OF ETHERNET HEADER OF RECEIVED ETHERNET FRAME 0x01ca?
NO
YES
S108
IS MESSAGE TYPE OF PAYLOAD OF RECEIVED ETHERNET FRAME 0x02 (SETTING COMPLETION MESSAGE)?
NO
YES
S110
HANDOVER!
S111
TRANSMIT HANDOVER END MESSAGE (MESSAGE TYPE: 0x03)
END

FIG. 11

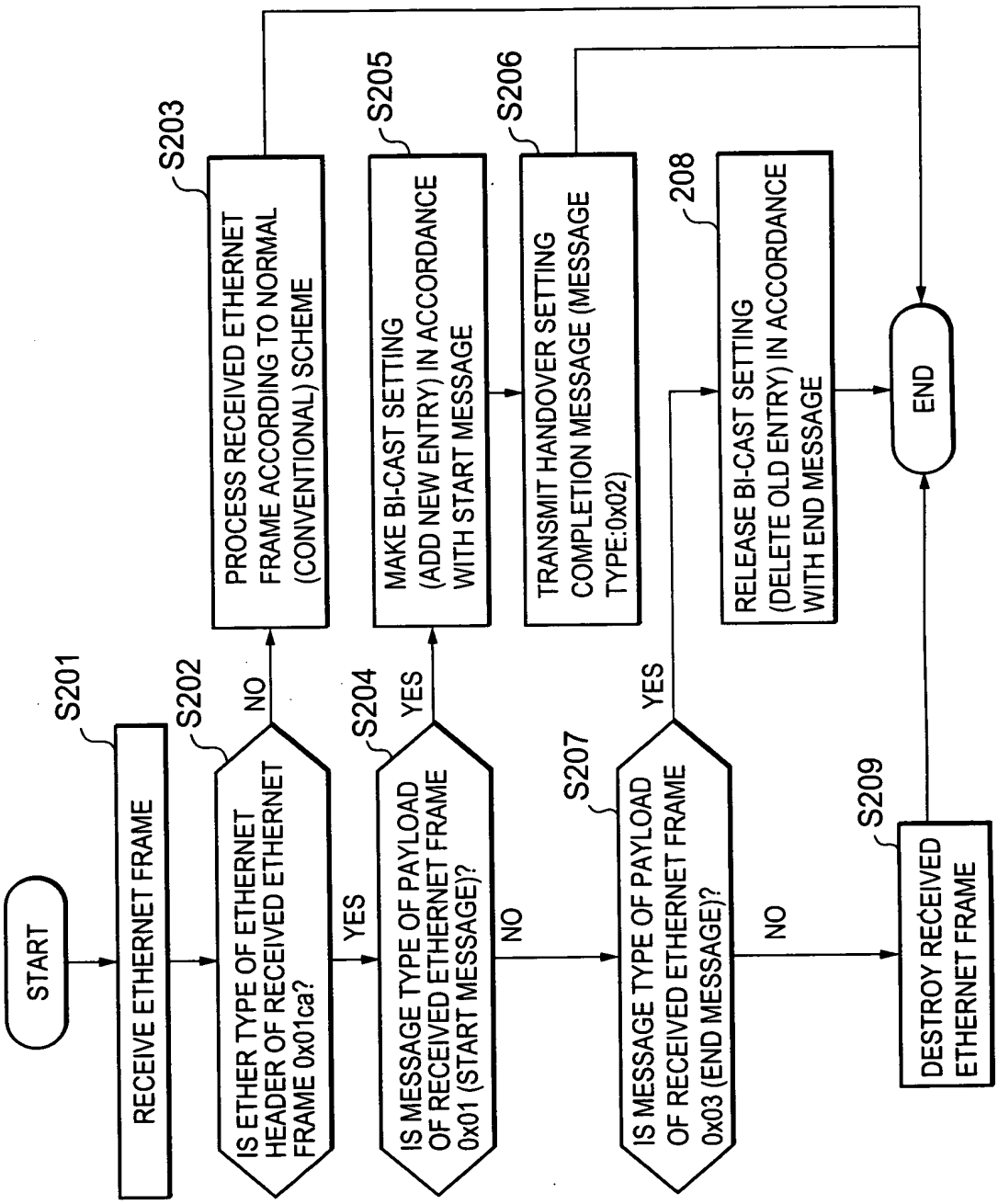

START
RECEIVE ETHERNET FRAME
S201
IS ETHER TYPE OF ETHERNET HEADER OF RECEIVED ETHERNET FRAME 0x01ca?
S202
NO
YES
PROCESS RECEIVED ETHERNET FRAME ACCORDING TO NORMAL (CONVENTIONAL) SCHEME
S203
IS MESSAGE TYPE OF PAYLOAD OF RECEIVED ETHERNET FRAME 0x01 (START MESSAGE)?
S204
YES
NO
MAKE BI-CAST SETTING (ADD NEW ENTRY) IN ACCORDANCE WITH START MESSAGE
S205
TRANSMIT HANDOVER SETTING COMPLETION MESSAGE (MESSAGE TYPE:0x02)
S206
IS MESSAGE TYPE OF PAYLOAD OF RECEIVED ETHERNET FRAME 0x03 (END MESSAGE)?
S207
YES
NO
RELEASE BI-CAST SETTING (DELETE OLD ENTRY) IN ACCORDANCE WITH END MESSAGE
208
DESTROY RECEIVED ETHERNET FRAME
S209
END

FIG. 12

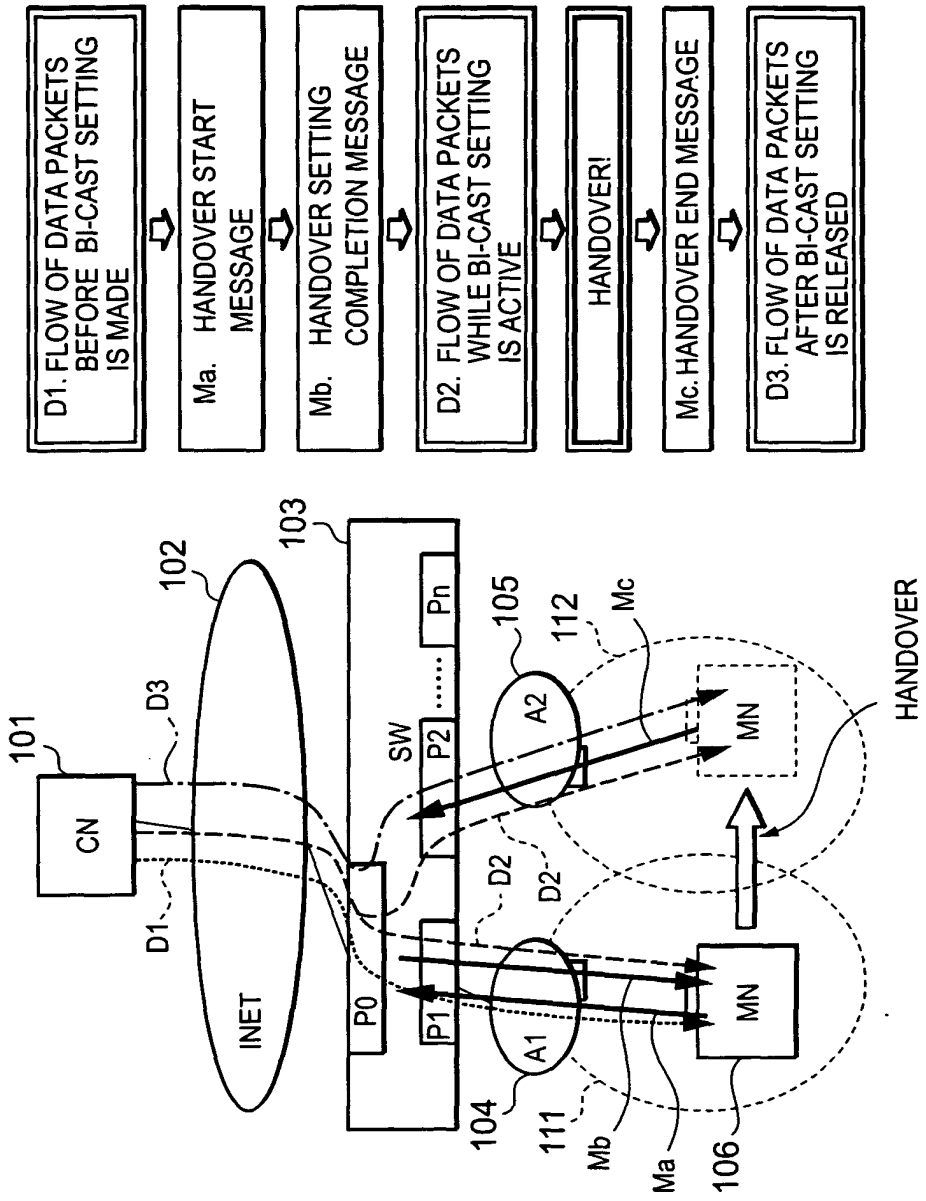

D1. FLOW OF DATA PACKETS BEFORE BI-CAST SETTING IS MADE
Ma. HANDOVER START MESSAGE
Mb. HANDOVER SETTING COMPLETION MESSAGE
D2. FLOW OF DATA PACKETS WHILE BI-CAST SETTING IS ACTIVE
HANDOVER!
Mc. HANDOVER END MESSAGE
D3. FLOW OF DATA PACKETS AFTER BI-CAST SETTING IS RELEASED
CN
101
D3
D1
102
INET
103
SW
P0
P1
P2
Pn
104
A1
105
A2
111
112
Mb
Ma
Mc
106
MN
MN
HANDOVER
D2
D2

FIG.13

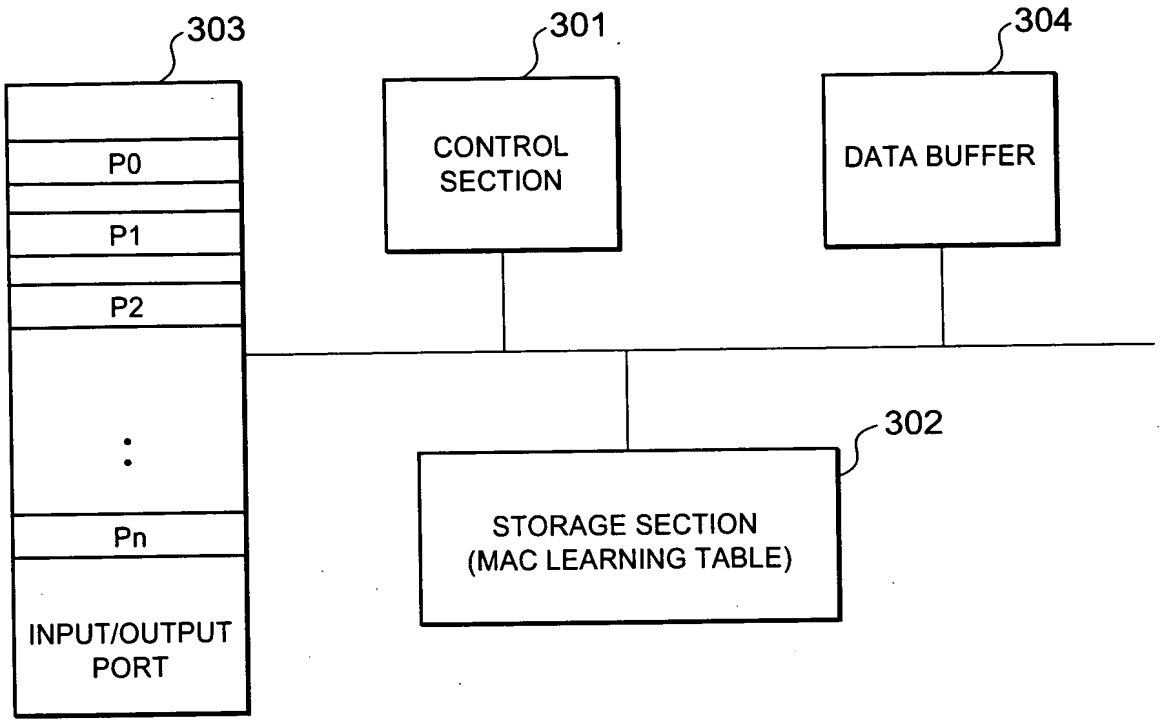
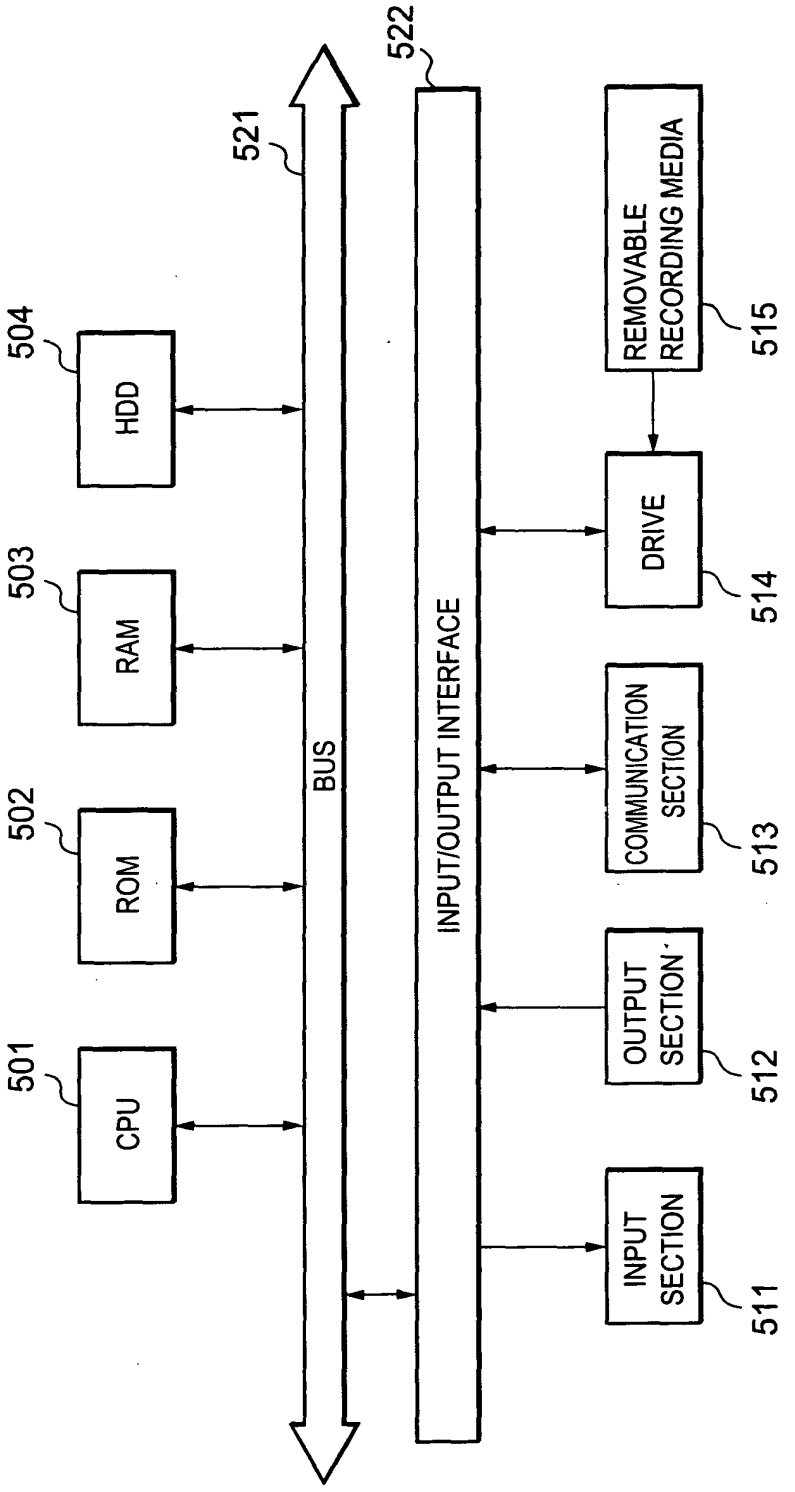

303
301
304
P0
P1
P2
Pn
INPUT/OUTPUT PORT
CONTROL SECTION
DATA BUFFER
302
STORAGE SECTION (MAC LEARNING TABLE)

FIG. 14


522
521
504
HDD
503
RAM
502
ROM
501
CPU
BUS
INPUT/OUTPUT INTERFACE
REMOVABLE RECORDING MEDIA
515
DRIVE
514
COMMUNICATION SECTION
513
OUTPUT SECTION
512
INPUT SECTION
511